

MAR 07 2007

In the Specification

Please amend the Specification at the paragraph that begins on page 2, at line 13, as follows:

In order to prevent the occurrence of the problem, the acoustic medium contains ~~[[a]]~~ water that displays a ~~with the~~ low acoustic-attenuation, or an aqueous solution obtained by adding an additive to water (hereinafter, simply referred to as an aqueous solution).

Please amend the Specification at the paragraph that begins on page 4, at line 8, as follows:

Fig. 3 is a cross-sectional view of transducer 3 as bisected by a ~~[[3-3]]~~ line 3X - 3X as shown in Fig. 2.

Please amend the Specification at the paragraph that begins on page 5, at line 22, as follows:

Referring to Fig. 3, which provides a cross-sectional view of transducer 3 as bisected by a line identified as 3X - 3X in Fig. 2, a coaxial cable 23 is shown connected to the piezoelectric element 4 in the ultrasonic transducer 3. The coaxial cable 23 is inserted in a hollow portion of the flexible shaft 21, and is connected to a slip ring 24 arranged in the operating portion 12. A cable 25 connected to the contact on a stator side of the slip ring 24 is connected to a transmitting and receiving portion 27 for transmitting and receiving the signal in the ultrasonic observing apparatus 6.

Please amend the Specification at the paragraph that begins on page 6, at line 10, as follows:

The system controller 29 controls the rotation of the motor 22 and controls the transmission and reception of ultrasonic waves. The transmitting and receiving portion 27

applies a driving signal to the piezoelectric element 4 in the ultrasonic transducer 3, thereby transmitting the ultrasonic waves. A signal transmitted from the piezoelectric element 4 and reflected by the subject is received by the piezoelectric element 4 and is converted into an echo signal. The echo signal is amplified and is then converted into the digital signal by an A/D converter (not shown) and is stored in a temporary frame memory 30 under the control of the system controller 29. An input device 33 is connected to the system controller 29 in order to provide system users with an interface with which to enter system control commands and instructions during operation. Input device 33 may comprise any known user input device such as a trackball, mouse, keyboard, etc.

Please amend the Specification at the paragraph that begins on page 9, at line 2, as follows:

A ~~ground~~ grand line 23b and a signal line 23a of the coaxial cable 23 are connected to the upper electrode 44a and lower electrode 44b, respectively.

Please amend the Specification at the paragraph that begins on page 12, at line 3, as follows:

Tungsten may be used as the metallic powders of the filling agent. As recent ultrasonic diagnostic application, the ultrasonic examination during the operation is used for an open gantry MRI (nuclear magnetic resonance imaging) apparatus. An ultrasonic transducer for the open gantry MRI apparatus is developed. The backing member mounted on the ultrasonic transducer is filled with magnetic powders such as ferrite and thus may generate image artifacts in MRI images taken, which artifacts could impede a user's ability to use the MRI image for diagnostic support ~~artifact which prevents the diagnosis might be caused in the MRI image~~. Therefore, in this case, in order to prevent the influence on the MRI image, the filling agent forming the backing member 47 in the ultrasonic transducer 3 may contain metallic oxides ~~oxide~~ such as non-magnetic and non-conductive tungsten oxides ~~oxide~~.

Please amend the Specification at the paragraph that begins on page 14, at line 11, as follows:

According to the embodiment, the exterior cap 36 at the distal end portion of the ultrasonic endoscope 2 is filled with the acoustic medium 37 such as water, and the ultrasonic transducer 3 is immersed in the acoustic medium 37. The backing member 47 for attenuating the ultrasonic waves contains ~~[[the]]~~ material that is preferably ~~with the preferable~~ waterproof and displays a ~~with the~~ high ultrasonic absorbing coefficient on the rear surface of the opposed surface of the ultrasonic transmitting and receiving surface of the piezoelectric element 4, which element generates the ultrasonic waves in the ultrasonic transducer 3. Therefore, the aging change is minimized, that is, the aging deterioration in ultrasonic property is minimized as compared with the conventional art.